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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/804,017	03/19/2004	Koichi Nishimura	1785.1013	8200

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STAAS & HALSEY LLP  
SUITE 700  
1201 NEW YORK AVENUE, N.W.  
WASHINGTON, DC 20005

EXAMINER
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EWALD, MARIA VERONICA

ART UNIT	PAPER NUMBER
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1722

DATE MAILED: 12/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/804,017	NISHIMURA ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Maria Veronica D. Ewald	1722	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 August 2005.
- 2a) ☒ This action is FINAL.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) 9 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Election/Restrictions***

13. Newly submitted claim 9 directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: claim 9 is drawn to a method of assembling a molding machine, Class 264.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claim 9 is withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

### ***Claim Rejections - 35 USC § 102***

14. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 – 3 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Hehl. Please note that examiner is referencing U. S. Patent No. 6,666,674, which is the equivalent of PCT publication no. WO01/28749. Hehl teaches an injection molding machine that is comprised of a machine base, in its operating condition, has at least two adjacently positioned components 10a and 10b (items 10a and 10b – figure 1, column 2, lines 43 – 44). Furthermore, the reference teaches that the molding machine

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consists of a movable mold carrier and a stationary mold carrier (column 1, line 53).

This reads on the applicant's claim that the molding machine comprise a stationary platen and a movable platen. The injection unit comprising of the movable mold carrier and the stationary mold carrier are disposed on the base component 10a; however, in a preferred embodiment, the stationary mold carrier can be mounted on the other base component 10b (column 2, lines 45 – 49). This reads on a first base frame supporting first mass including stationary platen and a second base frame supporting a second mass, said second mass including said movable platen. Hehl also teaches that the components 10a and 10b can be connected to one another via the stationary mold using a fulcrum; however, these two components (10a and 10b) can be aligned substantially independently of one another (column 2, line 67, column 3, lines 1 – 2).

This reads on the applicant's claim that the first and second base frames are independently shiftable relative to each other. Furthermore, Hehl teaches that his molding machine has two centering elements, creating a "pivotal axis" thereby allowing easier leveling of the two machine bases relative to one another (column 3, lines 7 – 11). These centering elements not only provide a leveling mechanism for the machine base, but also provide a connection means between component 10a and 10b (column 3, lines 3 – 5). These characteristics read on the applicant's claim that one of the first and second base frames be provided with a level adjusting mechanism for adjusting a relative height and a parallelism between said stationary and movable platens and that the first and second base frames are locally connected to each other.

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Claim 8 is rejected under 35 U.S.C. 102(b) as being anticipated by Hehl. Please note that examiner is referencing U. S. Patent No. 6,666,674, which is the equivalent of PCT publication no. WO01/28749. Hehl teaches a molding machine, comprising a movable platen carrying a movable mold arranged movably relative to a stationary platen carrying a stationary mold (column 1, lines 53 – 55; column 2, lines 37 – 40), and a first base frame supporting said stationary platen and a second base frame supporting said movable platen (column 2, lines 50 – 55; column 3, lines 45 – 50).

***Claim Rejections - 35 USC § 103***

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hehl in view of Nash, et al. Hehl teaches the characteristics described above, but does not teach an injection molding machine with a rear platen, disposed, at a location, opposite to said stationary platen, about said movable platen and a tie bar tying said stationary platen and said rear platen with each other and defining an axis extending in a direction of movement of movable platen; wherein said first mass includes said rear platen and said tie bar. In addition, Hehl does not teach a drive section mounted such that the first mass mounted on the first base frame includes the drive section.

In a method for molding plastic using a hydraulic molding machine with an improved machine base, Nash, et al. teaches a rectangular machine base that consists of an injection unit having fixed and movable platens, similar to Hehl, but also teaches that the unit has a fixed rear platen opposite the fixed platen, connected with four tie rods and a movable platen sandwiched between the two fixed platens movable along the tie rods (column 2, line 47 – 51). This reads on the applicant's claim that the injection-molding machine be equipped with a rear platen and a tie bar tying said stationary and rear platens with each other. Furthermore, Nash, et al. teaches that there is a hydraulic piston-cylinder assembly mounted on the fixed rear platen for moving and clamping shut said moving platen (column 2, lines 54 – 57, item 15 – figure 1).

It would have been obvious at the time of the invention to one of ordinary skill in the art to modify the injection-molding machine of Hehl to incorporate the rear platen/tie bar assembly and rear-mounted drive unit of Nash, et al. to be mounted on the first base frame, for the purpose of providing both horizontal support and a drive means for the movable platen so that it can move with ease towards the fixed platen.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hehl in view of Looije, et al. Hehl teaches the characteristics previously described but does not teach the use of a platen support movably supporting said movable platen on said second base frame.

In a method for producing molds using a stack mold system, Looije teaches a molding machine with a stack mold carrier assembly with one fixed platen and one

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movable platen. The movable platen is supported on linear bearings that engage fixed linear rails fastened to the support structure (column 2, lines 44 – 45). This reads on the applicant's claim that there be a platen support for the movable platen.

It would have been obvious at the time of the invention to one of ordinary skill in the art to modify the injection-molding machine of Hehl to incorporate the linear bearings of Looije for the purpose of allowing ease of movement of the movable platen along the linear rail in its movement towards or away from the stationary platen.

### ***Response to Arguments***

16. Applicant's arguments filed on August 25, 2005 have been fully considered but they are not persuasive. With respect to claims 1 – 3 and 7, Applicant has continually emphasized that the key feature lacking in the Hehl reference is the fact that the mold halves are not supported on two separate base frames. However, the Hehl reference addresses the claims as they stand. Hehl does teach that the stationary mold carrier (item 12 – figure 1) can be mounted on component 10b of the machine base; however, Hehl also states that there are fastening means (item 22 – figure 1) for the one component of the base frame with the stationary mold carrier and another set of fastening means (item 15 – figure 1) for the other component of the base frame and the stationary mold carrier through the intermediary fastening means (item 23 – figure 1; column 3, lines 13 – 16). Furthermore, Hehl states that the *connecting means* is consequently the stationary mold carrier, "it only having to be ensured that the two components of the machine base terminate, or respectively lie, at least within the

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vertical projection of the foot, or respectively, the feet of the stationary mold carrier” (column 3, lines 28 – 33). Thus, the two components of the machine frame can support the stationary mold carrier, whether partially or wholly. Applicant has argued that the stationary platen is to lie on a *completely different base frame* from the movable platen; however, claim 1, as written, does not explicitly state that the first base frame *wholly or entirely* supports *only the stationary platen* and does not state that the second base *wholly or entirely* supports *only the movable platen*. In addition, though claim 1 states that the first mass and second mass are different from each other, claim 1, as written, does not indicate that the second mass *cannot include* the stationary platen. For example, if mass 1 includes the stationary mold carrier, et al. and mass 2 includes the movable mold carrier, et al. and the Hehl reference teaches that mass 2 includes the movable mold carrier *and* the stationary mold carrier, mass 2 *is* different from mass 1 and thus, the limitations of claim 1 have been met. Therefore, the Hehl reference does teach, a first base frame supporting a first mass including said stationary platen and a second base frame supporting a second mass different from said first mass, said second mass including said movable platen.

Applicant has further argued that with respect to claims 4 and 6, there is no suggestion to combine the references of Hehl and Nash. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some



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teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). Applicant argues that to place the drive unit of Nash onto the machine base of Hehl will result in a split drive unit that will have to be leveled; however, the drive unit of Nash *is* positioned on the same base as the fixed platen (item 23 – figure 1) and if configured with the Hehl machine base, the drive unit is then part of component 10b and need not be split between the components of the machine base. Furthermore, if flexible hydraulic hose and the use of bolt flanges are used as taught by Nash (column 1, lines 60 – 61; column 3, lines 55 – 56) to minimize the number of hydraulic return lines/fittings and to secure the drive unit to the base, then leaking and leveling concerns are reduced. In addition, though Applicant argues the issues brought by utilizing the hydraulic unit of Nash, the hydraulic unit still addresses the motivation to combine the drive unit with the base of Hehl which is to move and clamp shut the moving platen (column 2, lines 55 – 56) as taught by Nash.

With respect to claim 5, Applicant argues that the Looije, et al. reference cannot be combined with the Hehl reference due to the difficulty in leveling the two components of the machine base; however, the key feature of the Looije reference is the *use of linear bearings to movably support the movable platen*. Furthermore, Applicant argues that column 1, lines 17 – 19 states that leveling independent components would result in “certain assembly expenditure” however, that phrase is not present within those lines.

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Looije, et al. does state that misalignment can be a problem; however, Looije, et al. is concerned with misalignment of the mold carriers not the machine base. Applicant further argues that regarding the Looije, et al. reference for all it contains would deter one of ordinary skill in the art to combine the two; however, Examiner is not citing the entire patent, but only the use of the linear bearings to support the movable platen and allow the platen support to move in operation. One of ordinary skill in the art would conclude that it is obvious that a movable platen support, which carries the movable platen would be supported on some type of structure allowing ease of movement.

With respect to claim 8, Examiner has again cited Hehl. Similar to the arguments discussed above with respect to claims 1 – 3 and 7, Hehl does teach a first base frame supporting said stationary platen and a second base frame supporting said movable platen. Again, Applicant argues that the stationary platen and movable platen are to be supported on *two different* base frames; however, the claim, as written does *not* explicitly state that the stationary platen is wholly or partially supported by the first base frame and should not be on the second base frame. As stated above, Hehl teaches that the *connecting means* is consequently the stationary mold carrier, “it only having to be ensured that the two components of the machine base terminate, or respectively lie, at least within the vertical projection of the foot, or respectively, the feet of the stationary mold carrier” (column 3, lines 28 – 33). Thus, the two components of the machine frame can support the stationary mold carrier, whether partially or wholly and therefore, in the broadest sense, the machine base of Hehl has a first base frame supporting said

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stationary platen and a second base frame supporting said movable platen, regardless of whether or not the stationary platen lies on both.

### ***Conclusion***

17. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Maria Veronica D. Ewald whose telephone number is 571-272-8519. The examiner can normally be reached on M-F, 8 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on 571-272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MVE

Joseph S. Del Sole  
11/29/05  
Joseph S. Del Sole